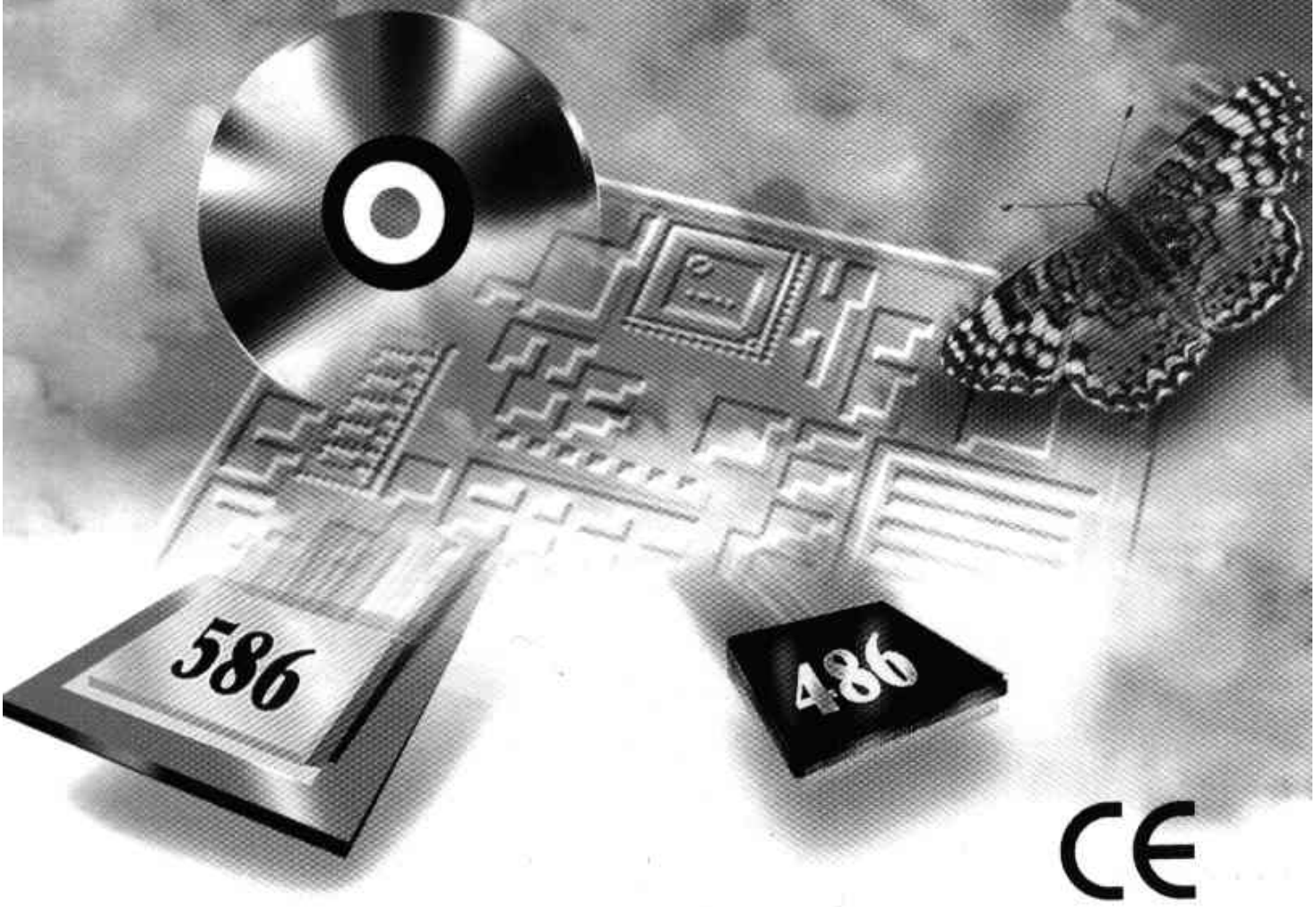
SIS 486 PCI/ISA MINI-SIZE SYSTEM BOARD

USER'S MANUAL

(VER . C)



CE

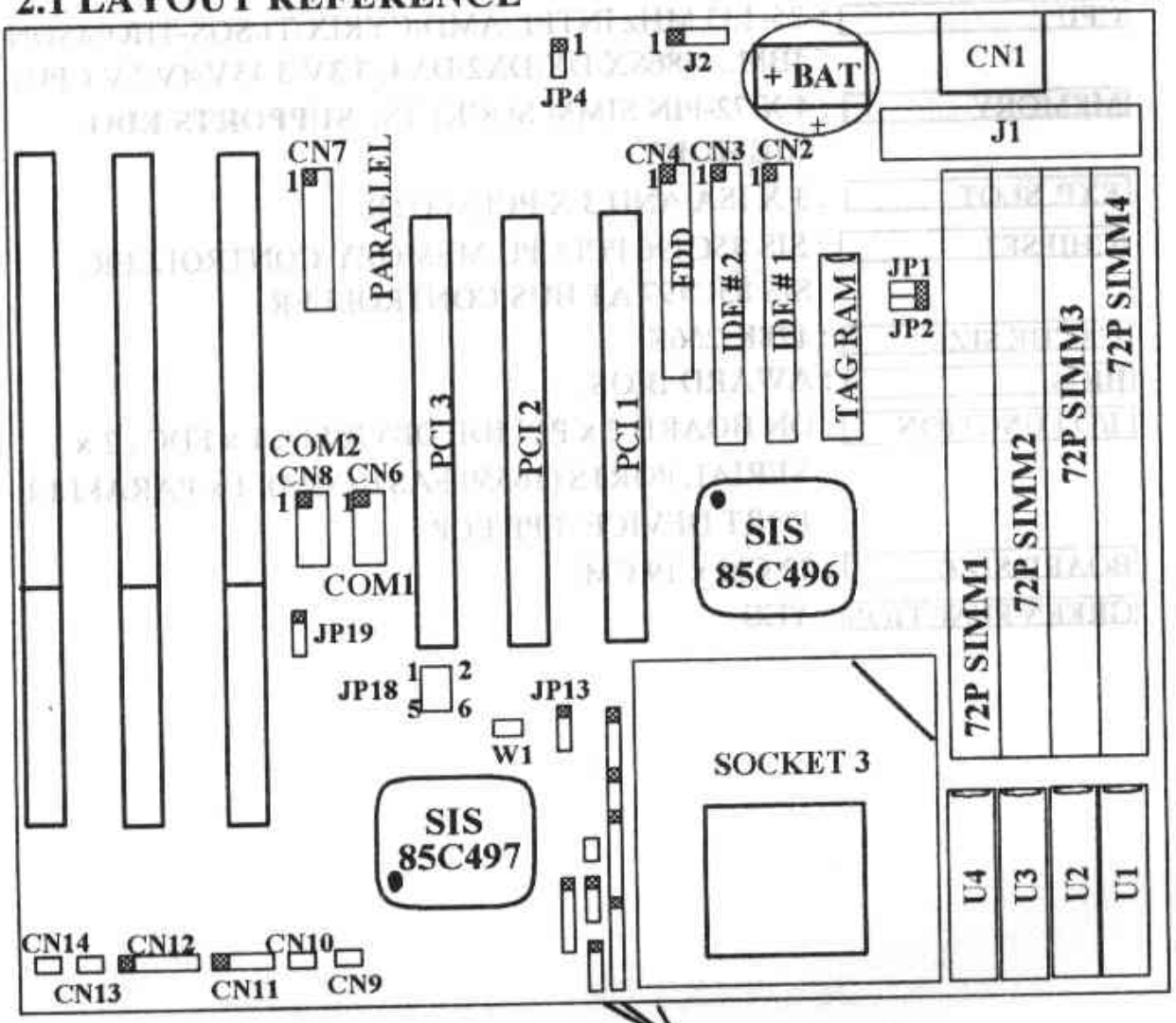
CHAPTER 1. FEATURES

1.1 SPECIFICATIONS .

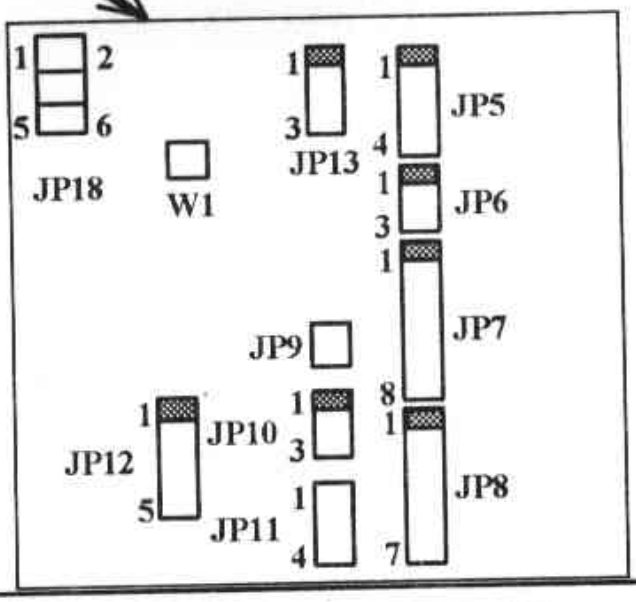
CPU	: 25-133 MHz INTEL/AMD/CYRIX/TI/SGS-THOMSON IBM... 486SX/DX/DX2/DX4, 3.3V/3.45V/4V/5V CPUs.
MEMORY	: 4 X 72-PIN SIMM SOCKETS, **SUPPORTS EDO MEMORY.**
EXP. SLOT	: 3 X ISA AND 3 X PCI SLOTS.
CHIPSET	: SIS 85C496 PCI/CPU MEMORY CONTROLLER. SIS 85C497 AT BUS CONTROLLER
CACHE SIZE	: 128K/256K
BIOS	: AWARD BIOS.
I/O FUNCTION	: ON BOARD 2 x PCI IDE DEVICES , 1 x FDC , 2 x SERIAL PORTS (16550 FAST COM), 1 x PARALLEL PORT DEVICE /EPP/ECP.
BOARD SIZE	: 22 CM x 19 CM.
GREEN FUNCTION	: YES

CHAPTER 2. INSTALLATION

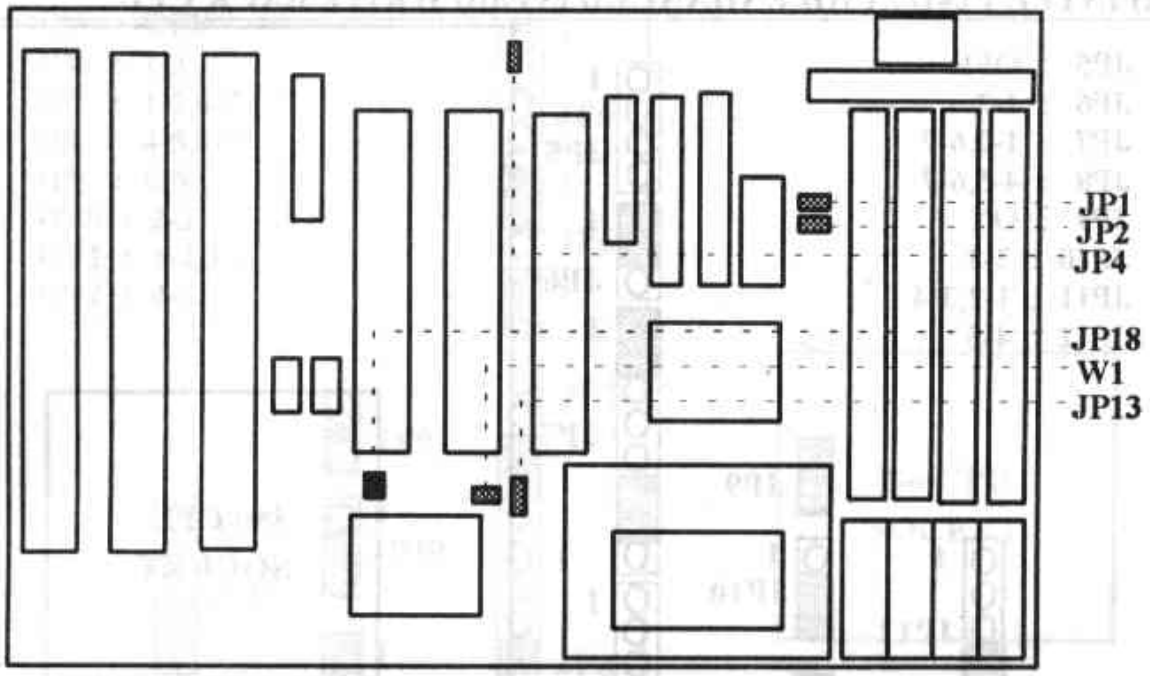
2.1 LAYOUT REFERENCE



CN9 : HDD LED
CN10 : RESET
CN11 : SPEAKER
CN12 : KEYLOCK
CN13 : TURBO SWITCH
CN14 : TURBO LED



2.2 SIS 486 PI JUMPER SETTINGS



1. JP18 : CPU CLOCK SELECTOR (RED JUMPER CAP)

	(25 MHZ) 486DX-25 486DX2-50,**P24T-63** 486DX4-75	**(33 MHZ)** 486DX-33, 486DX2-66 **P24T-83,** 486DX4-100 **5X86-100, 5X86-133**	**(40 MHZ)** 486DX-40,486DX2-80 486DX4-120 CYRIX 5X86-120
JP18	OFF 1 2 3 4 5 6	1-2 1 2 3 4 5 6	3-4 1 2 3 4 5 6

2. JP13,W1 : 3V/4V/5V CPU VOLTAGE SELECTOR (YELLOW JUMPER CAP)

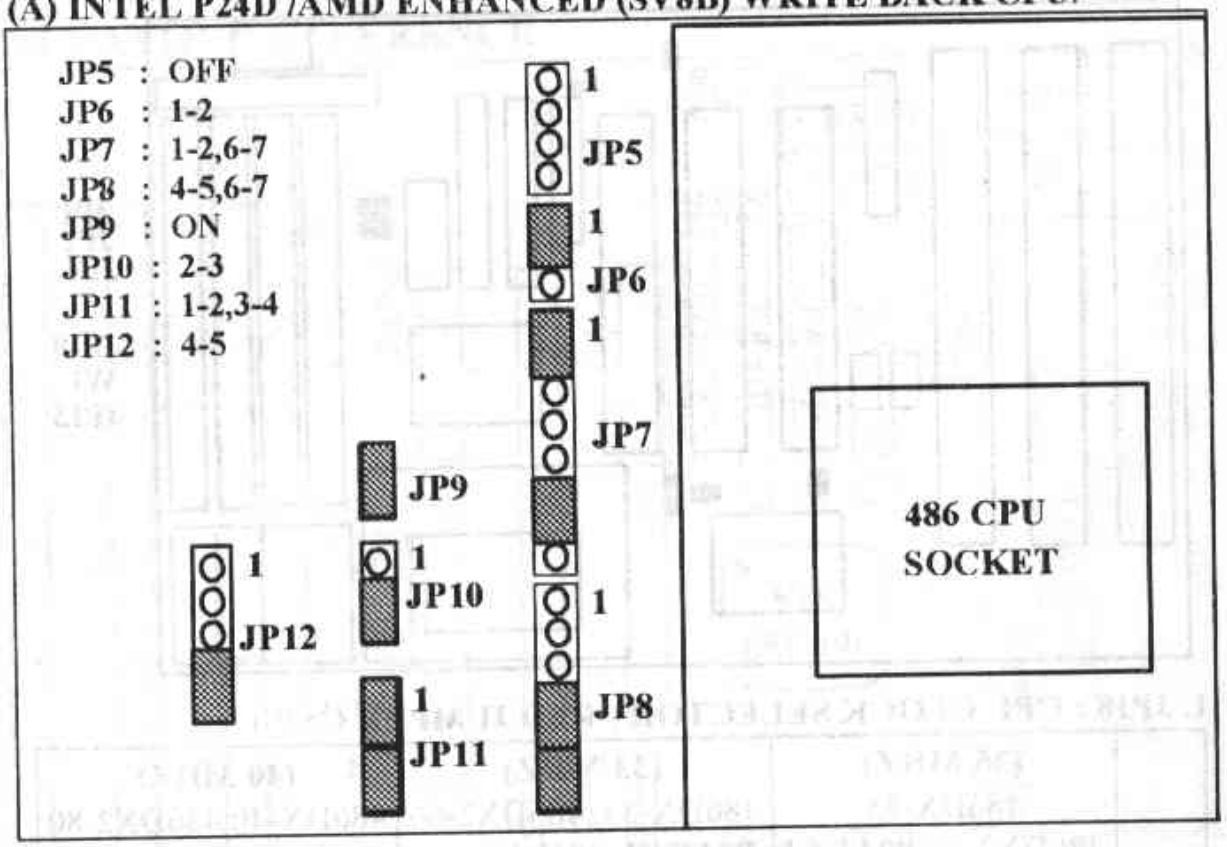
	INTEL/AMD/Cyrix/TI **(3V)**	Cyrix DX2-80 **(4V)**	**ALL 5V CPU & P24T-63/83 486 ODP**
W1 JP13	JP13 : 1-2 W1 1 1 JP13	JP13 : 2-3 W1 1 1 JP13	W1 : ON W1 1 1 JP13

3. JP4 : BATTERY SELECTOR (BLACK JUMPER CAP)

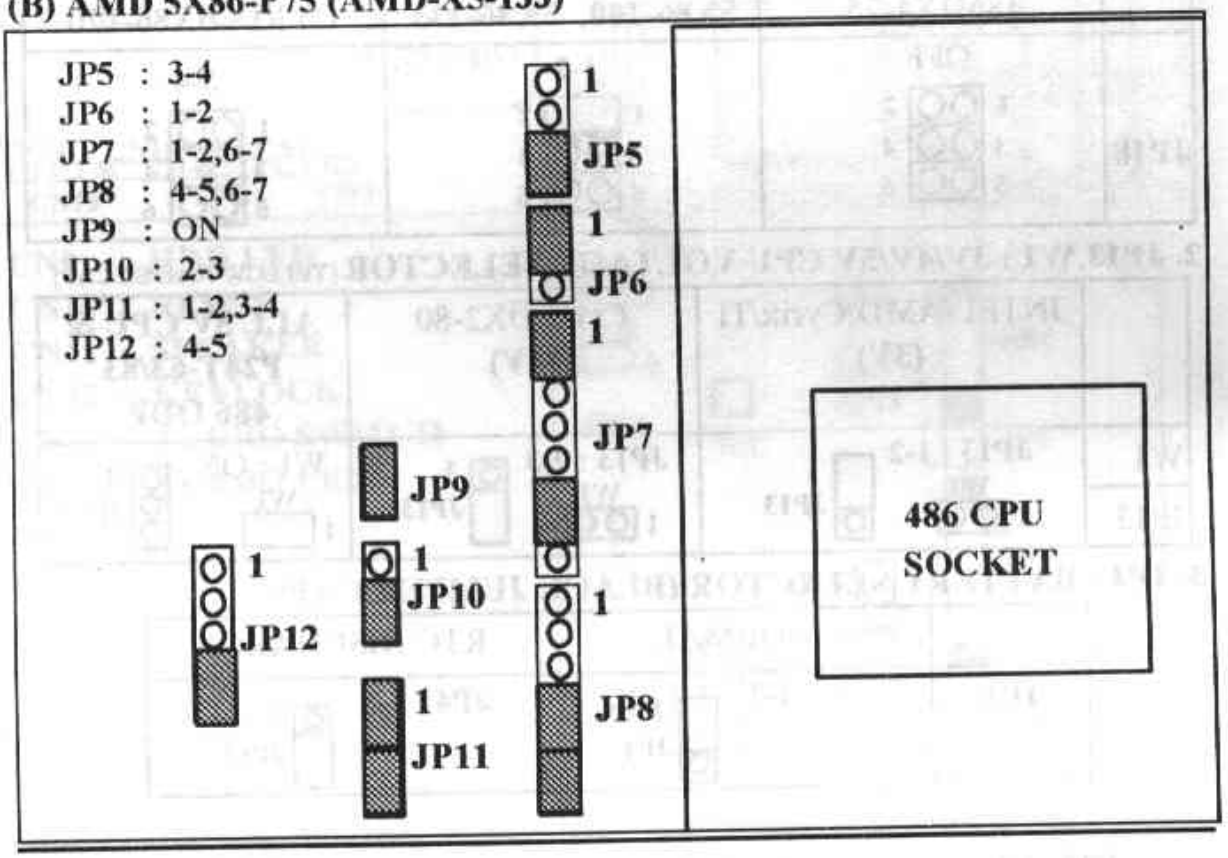
	NORMAL	RTC DISCHARGE
JP4	JP4 : 1-2 1 JP4	JP4 : 2-3 1 JP13

4. JP5-JP12 CPU TYPE SELECTOR (YELLOW JUMPER CAP)

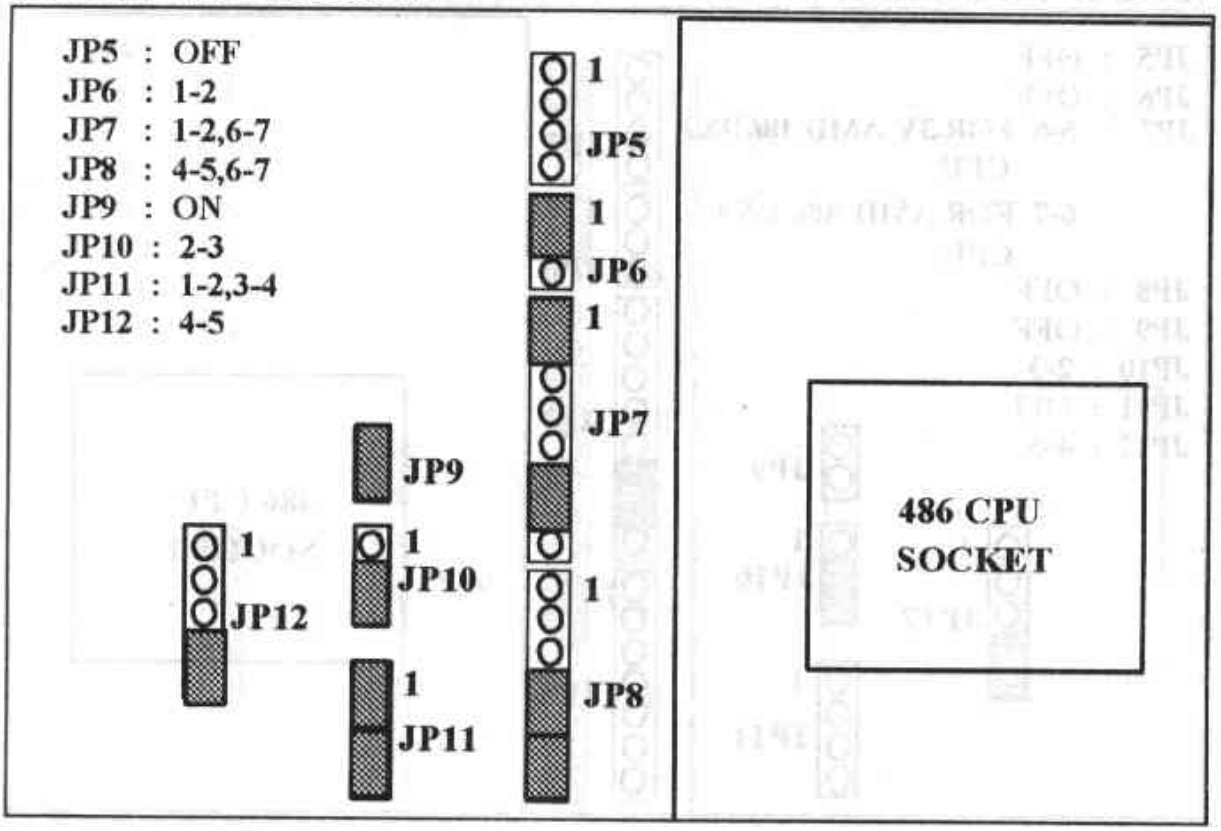
(A) INTEL P24D /AMD ENHANCED (SV8B) WRITE BACK CPU.



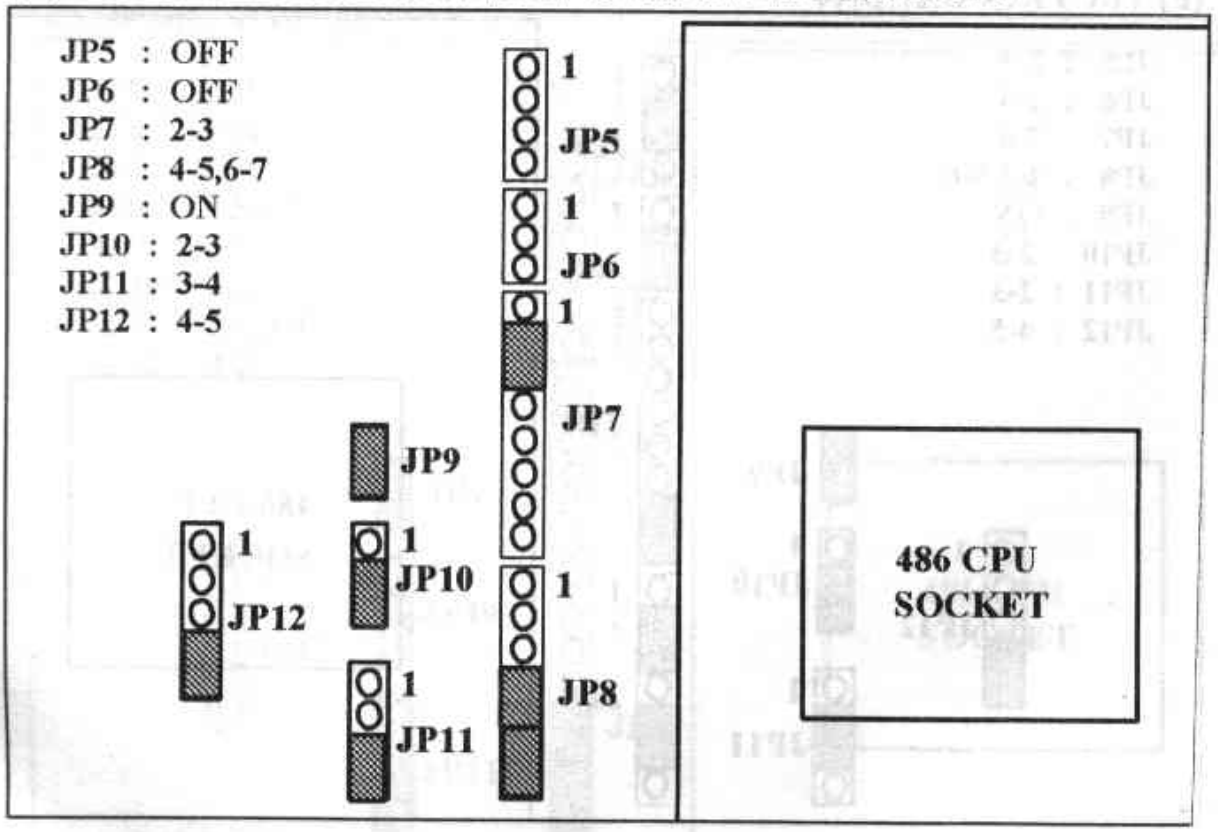
(B) AMD 5X86-P75 (AMD-X5-133)



(C) CYRIX/ST/IBM 5X86

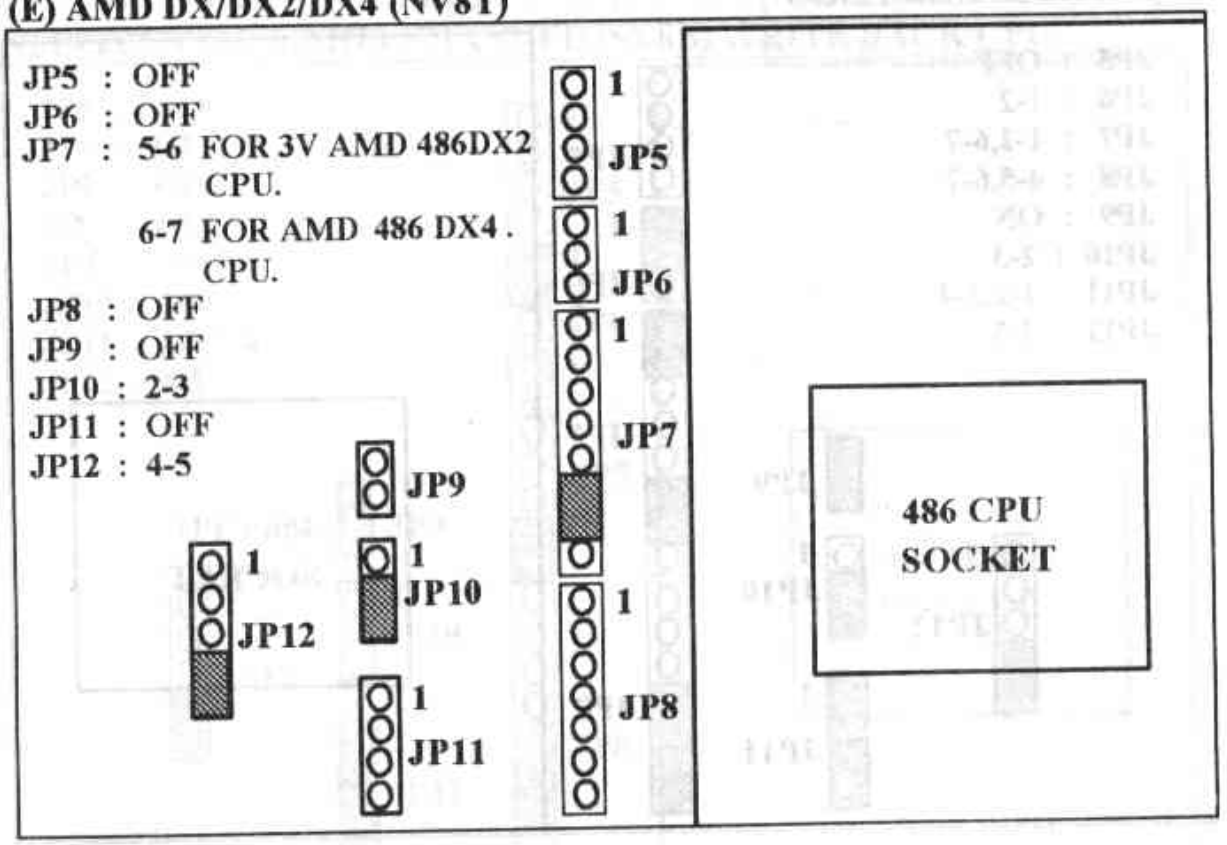


(D) INTEL -SLE 486 DX/DX2/DX4 & 486 OVER DRIVE CPU



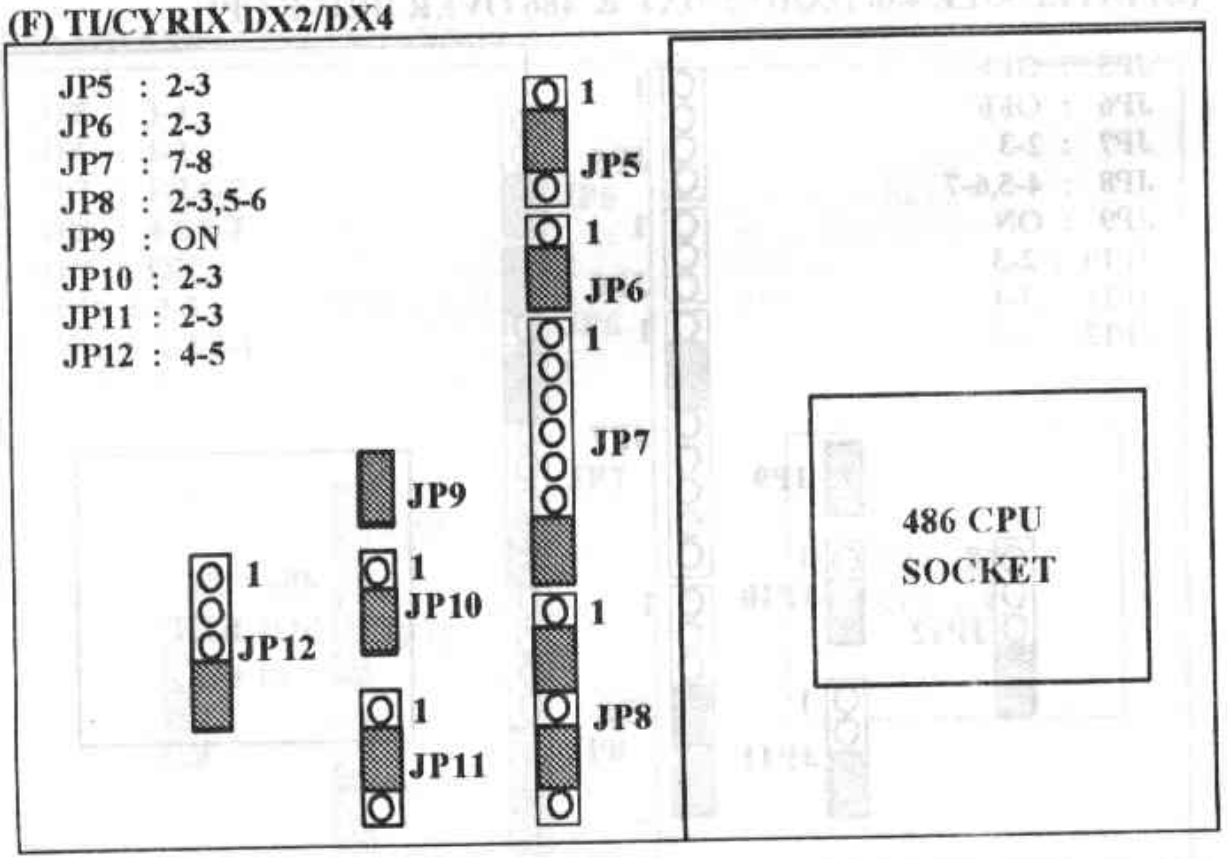
(E) AMD DX/DX2/DX4 (NV8T)

JP5 : OFF
JP6 : OFF
JP7 : 5-6 FOR 3V AMD 486DX2 CPU.
6-7 FOR AMD 486 DX4 . CPU.
JP8 : OFF
JP9 : OFF
JP10 : 2-3
JP11 : OFF
JP12 : 4-5

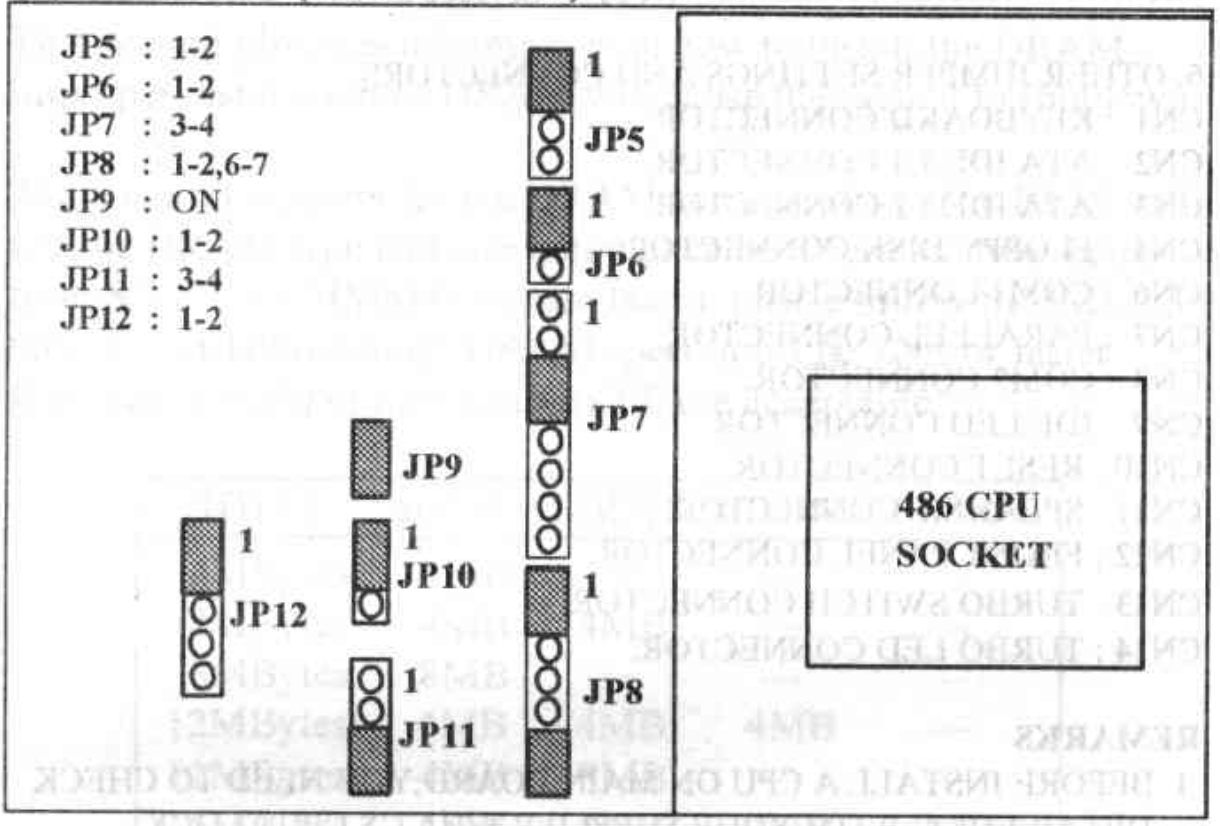


(F) TI/CYRIX DX2/DX4

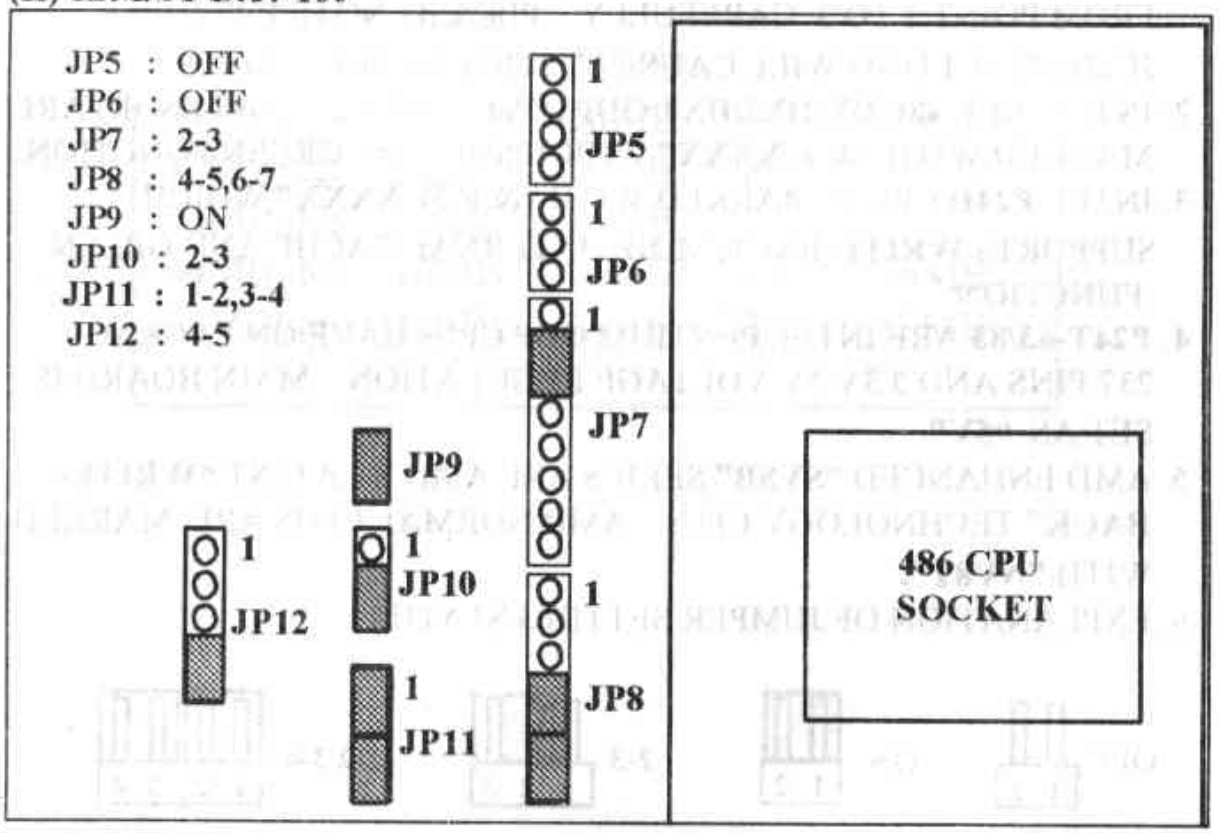
JP5 : 2-3
JP6 : 2-3
JP7 : 7-8
JP8 : 2-3,5-6
JP9 : ON
JP10 : 2-3
JP11 : 2-3
JP12 : 4-5



(G) INTEL P24T (PENTIUM ODP)



(H) IBM/ST DX4-100



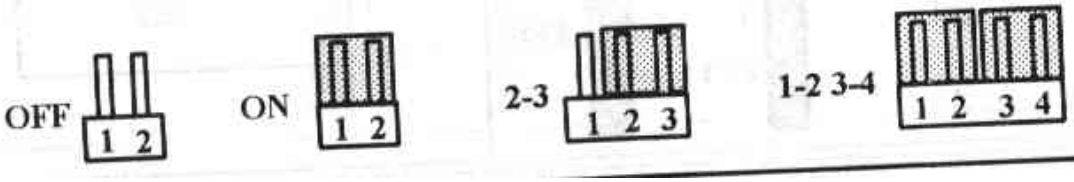
5.JP1,JP2: CACHE SIZE SELECTOR,SEE PAGE 10.

6. OTHER JUMPER SETTINGS AND CONNECTORS :

CN1 : KEYBOARD CONNECTOR
CN2 : ATA IDE # 1 CONNECTOR.
CN3 : ATA IDE # 2 CONNECTOR.
CN4 : FLOPPY DISK CONNECTOR.
CN6 : COM1 CONNECTOR.
CN7 : PARALLEL CONNECTOR.
CN8 : COM2 CONNECTOR.
CN9 : IDE LED CONNECTOR.
CN10 : RESET CONNECTOR.
CN11 : SPEAKER CONNECTOR.
CN12 : FRONT PANEL CONNECTOR.
CN13 : TURBO SWITCH CONNECTOR.
CN14 : TURBO LED CONNECTOR.

REMARKS

1. BEFORE INSTALL A CPU ON MAIN BOARD,YOU NEED TO CHECK DETAILEDLY WITH YOUR SUPPLIER WHAT'S CPU CLOCK, VOLTAGE , MODEL..THEN REFER TO ABOVE JUMPER SETTINGS FROM POINT 1 TO 3 CAREFULLY. PLEASE NOTE IMPROPER JUMPER SETTING WILL CAUSE SYSTEM TO SHUTDOWN.
2. INTEL **-SLE 486 DX/DX2/DX4/ODP** (OVER DRIVE PROCESSOR) ARE MARKED WITH **"& E XXXX"** WHICH SUPPORT GREEN FUNCTION.
3. INTEL **P24D** CPU IS MARKED WITH **"& E W XXXX"** WHICH SUPPORTS **WRITE-BACK** MODE INTERNAL CACHE AND GREEN FUNCTION.
4. **P24T-63/83** ARE INTEL PENTIUM ODP CPUs HAVE ON PACKAGE 237 PINS AND 3.3V/5V VOLTAGE REGULATION. MAIN BOARD IS SET AS **"5V"**.
5. AMD ENHANCED **"SV8B"** SERIES ARE AMD'S LATEST **"WRITE-BACK"** TECHNOLOGY CPUs. AMD NORMAL CPUS ARE MARKED WITH **"NV8T"**.
6. EXPLANATION OF JUMPER SETTING STATUS



2.3 MEMORY CONFIGURATION

This section provides information on how to install the DRAM. Improper installation of DRAM will cause the system to shutdown.

There are no jumpers for the DRAM configuration. The BIOS will test the DRAM type and size automatically. There are two -banks from SIMM1 to SIMM4 on main board. please follow SIMM1,2,3 then 4 to install memory. DRAM speed must be 70ns or faster. Both parity (x36) or non-parity (x32) are acceptable.

TOTAL	SIMM1	SIMM2	SIMM3	SIMM4
4MBytes	4MB	—	—	—
8MBytes	4MB	4MB	—	—
8MBytes	8MB	—	—	—
12MBytes	4MB	4MB	4MB	—
12MBytes	4MB	8MB	—	—
16MBytes	4MB	4MB	4MB	4MB
16MBytes	8MB	8MB	—	—
16MBytes	16MB	—	—	—
20MBytes	4MB	16MB	—	—
24MBytes	8MB	16MB	—	—
32MBytes	8MB	8MB	8MB	8MB
32MBytes	16MB	16MB	—	—
64MBytes	16MB	16MB	16MB	16MB
128MBytes	32MB	32MB	32MB	32MB

2.4 CACHE RAM CONFIGURATION

The SIS 496 P.I..system is very flexible in its configuration of Cache SRAM. Please refer to the Following tables.
(BLACK JUMPER CAP)

JP2 : CACHE RAM SIZE SELECTOR

	128K CACHE RAM	256K CACHE RAM
JP2	JP2 : 1-2 1	JP2 : 2-3 1

JP1 : TAG RAM SIZE SELECTOR

	32KX8/8KX8	16KX8
JP1	JP1 : 1-2 1	JP1 : 2-3 1

(1) 128KB Cache RAM
Bank 0 (U1,U2,U3,U4) : 32Kx8 SRAM 4pcs.
Tag RAM (U10) : 8Kx8/32Kx8 SRAM 1pc

(2) 256KB Cache RAM
Bank 0 (U1,U2,U3,U4) : 64Kx8 SRAM 4pcs.
Tag RAM (U10) : 32Kx8/16Kx8 SRAM 1pc